WHAT IS CLAIMED IS:

1. A method for eliciting an immune response in a subject comprising administering an immunogenically effective amount of a peptide or protein antigen comprising one or more T cell epitope(s) coordinately with a non-viral vector comprising a polynucleotide encoding a T cell co-stimulatory molecule.

2. The method of claim 1, wherein the peptide or protein antigen comprises a T cell epitope of a tumor antigen or viral antigen.

3. The method of claim 2, wherein the tumor antigen is selected from p53, *ras*, *rb*, *mcc*, *apc*, *dcc*; *nfl*; VHL; MEN1, MEN2, MLM, Her-2neu, CEA, PSA; Mucl, Gp100, tyrosinase, or MART1.

4. The method of claim 3, wherein the tumor antigen is selected from a mutant or normal p53 or *ras* protein.

5. The method of claim 4, wherein the peptide antigen comprises a sequence of at least nine amino acids spanning a mutation in p53 or *ras*.

6. A method for eliciting an immune response in a subject comprising administering an immunogenically effective amount of a protein antigen comprising at least one T cell epitope coordinately with a non-viral vector comprising a polynucleotide encoding a T cell co-stimulatory molecule.

7. The method of claim 2, wherein the viral antigen is selected from a human immunodeficiency virus (HIV), hepatitis B virus (HBV), hepatitis C virus (HCV), herpes simplex virus (HSV) or human papilloma virus (HPV) antigen.

8. The method of claim 7, wherein the peptide antigen comprises at least nine contiguous amino acids of a HPV antigenic protein.

9. The method of claim 7, wherein the peptide antigen comprises at least nine contiguous amino acids of a HIV antigenic protein.

10. The method of claim 7, wherein the peptide antigen comprises at least nine contiguous amino acids of a HBV or HCV antigenic protein.

11. The method of claim 1, wherein the co-stimulatory molecule is selected from B7-1, B7-2, B7-3, B7-H, ICAM1, ICAM2, ICAM3, LFA1, LFA2 or LFA3.

12. The method of claim 11, wherein the co-stimulatory molecule is B7-1.

13. The method of claim 1, wherein the peptide antigen and non-viral vector encoding one or more T cell co-stimulatory molecules are administered to the subject simultaneously as a mixture in a pharmaceutically acceptable carrier or diluent.

14. The method of claim 1, wherein the peptide antigen and non-viral vector encoding the T cell co-stimulatory molecule are administered separately to the subject in a sequential vaccination protocol.

15 The method of claim 1, wherein the peptide antigen and non-viral vector encoding the T cell co-stimulatory molecule are administered to proximal target sites selected from the same, or closely-adjacent, intradermal, subcutaneous, mucosal or intratumoral sites.

16. The method of claim 1, wherein the non-viral vector is selected from a RNA or DNA vector.

17. The method of claim 1, wherein the non-viral vector comprises a naked DNA vector having the polynucleotide encoding the co-stimulatory molecule operably linked to regulatory elements necessary for expression of the co-stimulatory molecule in eukaryotic cells.

18. An immunogenic composition comprising an immunogenically effective amount of a peptide or protein antigen comprising a T cell epitope, and a non-viral vector comprising a polynucleotide that encodes a T cell co-stimulatory molecule operably linked to regulatory elements necessary for expression of the co-stimulatory molecule in eukaryotic cells, formulated in a pharmaceutically acceptable carrier or diluent.

19. The immunogenic composition of claim 18, wherein the peptide antigen comprises a T cell epitope of a tumor antigen or viral antigen.

20. The immunogenic composition of claim 19, wherein the tumor antigen is selected from p53, *ras*, *rb*, *mcc*, *apc*, *dcc*; *nfl*; VHL; MEN1, MEN2, MLM, Her-2neu, CEA, PSA; Muc1, Gp100, tyrosinase, or MART1.

21. The immunogenic composition of claim 20, wherein the peptide antigen comprises a sequence of at least nine amino acids spanning a mutation in p53 or *ras*.

22. The immunogenic composition of claim 18, wherein a protein antigen is administered as a purified protein or a tumor lysate component of a vaccine formulation.

23. The immunogenic composition of claim 19, wherein the viral antigen is selected from an antigenic protein of human immunodeficiency virus (HIV), hepatitis B virus (HBV), hepatitis C virus (HCV); herpes simplex virus (HSV), or human papilloma virus (HPV) antigen.

24. The immunogenic composition of claim 23, wherein the peptide antigen comprises at least nine contiguous amino acids of a HPV E6 or E7 protein.

25. The immunogenic composition of claim 23, wherein the peptide antigen comprises at least nine contiguous amino acids of a HIV antigenic protein.

26. The immunogenic composition of claim 23, wherein the peptide antigen comprises at least nine contiguous amino acids of a HBV antigenic protein.

27. The immunogenic composition of claim 18, wherein the co-stimulatory molecule is selected from B7-1, B7-2, B7-3, B7-H, ICAM1, ICAM2, ICAM3, LFA1, LFA2 or LFA3.

28. The immunogenic composition of claim 27, wherein the co-stimulatory molecule is B7-1.

29. The immunogenic composition of claim 18, wherein the non-viral vector is selected from a RNA or DNA vector.

30. The immunogenic composition of claim 29, wherein the non-viral vector comprises a naked DNA vector having the polynucleotide encoding the co-stimulatory molecule operably linked to regulatory elements necessary for expression of the co-stimulatory molecule in eukaryotic cells.

31. The immunogenic composition of claim 18, wherein the peptide antigen comprises a cytotoxic T cell (CTL) epitope.